External Array Proposal for the North Coast MLPA Study Region Submitted on behalf of the California Fisheries Coalition Primary Contact:
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#### Narrative and Rationale

The California Fisheries Coalition is a statewide group of fishing associations, businesses, and ports and harbors that have been working together on the MLPA in each region. Association members in the CFC include the Recreational Fishing Alliance, Humboldt Fishermen's Marketing Association, Humboldt Area Saltwater Anglers, Salmon Troller's Marketing Association, Sonoma County Abalone Network, North Coast Fishing Association. Our members participated in the local county working groups and support the Tri County Working Group Array and the Mendocino Ocean Community Alliance, which are identical. Based on guidance we received from the Science Advisory Team, we submit an additional array for consideration. The SAT told us they wanted to see more than one array, contrary to the wide local interest in developing a single, community-based proposal. This array has three variations from the MOCA/TCWG array:

Eliminated the Point Cabrillo SCMA, in order to evaluate the importance or necessity to do side-by-side studies on urchins, kelp and abalone.

Eliminated the Navarro Estuary SMR, to learn whether additional protection beyond the Ten Mile SMR is necessary.

Changed the shape of the Pyramid Point SMR to avoid impacting nearshore access for the Smith River Rancheria.

We feel that analysis of these variations can provide important guidance for stakeholders throughout the MLPA process on the north coast.

We support the statement from the tribes:

Tribal Indigenous Peoples have inhabited the Pacific North Coast since time immemorial and continue to rely on the coast and the ocean for a variety of customary uses, including but not limited to subsistence harvesting and gathering of marine life; and spiritual, ceremonial and other traditional cultural activities. These uses and activities are undertaken pursuant to aboriginal rights founded in federal law, which the State of California is obligated to respect and protect. As an intrinsic part of the ecosystem, Indigenous Peoples have been and continue to be responsible stewards of the

environment. Traditional ecological and cultural knowledge forms the basis of sustainable management by Indigenous Tribal peoples of the North Coast Region. Due to the nature, methods, and amounts harvested, the take of marine species by Indigenous Peoples is minimal.

Each of the North Coast Tribes is a distinct sovereign nation and each has identified certain areas in the North Coast Region where traditional customary uses and cultural activities are carried out. Furthermore, each federally-recognized Tribal Nation retains a government-to-government relationship with the Federal government. In implementing the MLPA, the Initiative should likewise engage in government-to-government consultations to address Tribal concerns. There are also federal trust responsibilities that are based on the unique legal relationship between the United States and recognized *Indian Tribes. In the spirit of these responsibilities, the State of California should ensure* that the preferred alternative for MPAs in the North Coast Region contains provisions recognizing and protecting traditional customary and cultural uses of Indigenous Peoples in the areas identified as such by the Tribes. Sustainable harvesting and gathering is a key principle in cultural and ecological preservation, and it is fully consistent with the goals and purposes of the Marine Life Protection Act. Moreover, as Tribes in California have never ceded their aboriginal rights to continue to harvest and gather from the marine environment, the State should recognize those uses and ensure that the regulations adopted as part of the MLPA process do not infringe upon them in any manner, unless expressly authorized by the affected Tribe.

Very truly yours,

Jim Martin

# California Marine Life Protection Act Initiative MLPA North Coast Study Region: Round 1 Evaluations Staff Summary of Area and Habitats in External Proposed MPA Array H Date Created: March 5, 2010

Table 1. Summary of MPAs by Designation for External Proposed MPA Array H

Type of MPA <sup>a</sup>	# of MPAs	Area (mi²)	% of Study Region
State Marine Reserve (SMR)	6	58.93	5.7%
State Marine Recreational Managed Area (SMRMA)	1	1.84	0.2%
State Marine Park (SMP)	0	0.00	0.0%
State Marine Conservation Area (SMCA)	3	25.75	2.5%
All MPAs combined	10	86.52	8.4%

<sup>&</sup>lt;sup>a</sup> These are proposed marine protected area (MPA) designations, NOT levels of protection assigned by the MLPA Master Plan Science Advisory Team (SAT). SMRMA is not an MPA designation, but rather a marine managed area designation.

Table 2. Summary of MPAs by Level of Protection for External Proposed MPA Array H

Level of Protection (LOP)	# Proposed	Area (mi²)	% of Study Region
Very High <sup>b</sup>	7	60.77	5.9%
High	0	0.00	0.0%
Moderate-High	3	25.75	2.5%
Moderate	0	0.00	0.0%
Low <sup>c</sup>	0	0.00	0.0%
Total	10	86.52	8.4%

<sup>&</sup>lt;sup>b</sup> The "Very High" category includes MPAs with SMR designation, as well as SMRMA designations.

<sup>&</sup>lt;sup>c</sup> The "Low" category groups together MPAs that are assigned a moderate-low and low level of protection.

Table 3. Individual MPAs in External Proposed MPA Array H

MPA Name	Sized (mi <sup>2</sup> )	Alongshore Spane (mi)	Depth Range <sup>f</sup> (ft)	
Pyramid Point SMR <sup>9</sup>	18.89	4.7	11 - 124	
Reading Rock SMR <sup>9</sup>	11.38	2.5	90 - 247	
Reading Rock SMCA <sup>g</sup>	9.88	3.1	0 - 101	
Humboldt Bay SMRMAg	1.84	N/A	Depth data not available	
Eel River SMCAg	13.20	3.7	0 - 120	
Punta Gorda SMR <sup>g</sup>	19.36	4.9	0 - 1667	
Ten Mile SMR <sup>g</sup>	8.81	2.3	0 - 335	
Ten Mile Beach SMCAg	2.67	0.7	0 - 288	
Ten Mile Estuary SMR <sup>g</sup>	0.19	N/A	Depth data not available	
Point Cabrillo SMR <sup>g</sup>	0.30	0.7	0 - 40	

d Statue mile is the unit of measurement used for this analysis.

Table 4. Habitat Representation in External Proposed MPA Array H

	S	MR	SM	RMA	S	MP	SN	ЛCA	Total	MPAs
Habitat <sup>h</sup>	Area	%	Area	%	Area	%	Area	%	Area	%
				Intertio	dal					
Sandy or gravel beach*	4.92	3%	0.00	0%	0.00	0%	7.65	4%	12.58	7%
Rocky shores*	8.83	6%	0.28	<1%	0.00	0%	0.02	<1%	9.13	6%
Hardened shores*	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%
Coastal marsh*	2.30	3%	1.90	2%	0.00	0%	0.00	0%	4.20	5%
Coastal marsh	0.05	1%	0.04	1%	0.00	0%	0.00	0%	0.09	3%
Tidal flats*	0.00	0%	0.98	1%	0.00	0%	0.00	0%	0.98	1%
				Seagrass	beds					
Humboldt Eelgrass	0.00	0%	0.57	8%	0.00	0%	0.00	0%	0.57	8%
				Estua	arine					
Estuary	0.19	<1%	1.84	4%	0.00	0%	0.00	0%	2.03	5%
				Hard bo	ottom					
0-30 meters proxy*,i	3.10	6%	0.00	0%	0.00	0%	0.00	0%	3.10	6%
0-30 meters	2.51	6%	0.00	0%	0.00	0%	0.00	0%	2.51	6%
30-100 meters	1.66	4%	0.00	0%	0.00	0%	0.00	0%	1.66	4%
100-200 meters	0.23	23%	0.00	0%	0.00	0%	0.00	0%	0.23	23%
>200 meters	0.05	52%	0.00	0%	0.00	0%	0.00	0%	0.05	52%

<sup>&</sup>lt;sup>e</sup> Alongshore span measured as direct line from one end of the MPA to the other, roughly paralleling the coastline. An alongshore span is not calculated for estuarine MPAs

f Comprehensive bathymetric data for all estuaries is not available. Though bathymetric data do exist in portions of some estuaries, depth ranges are not provided for estuarine MPAs for consistency in evaluations.

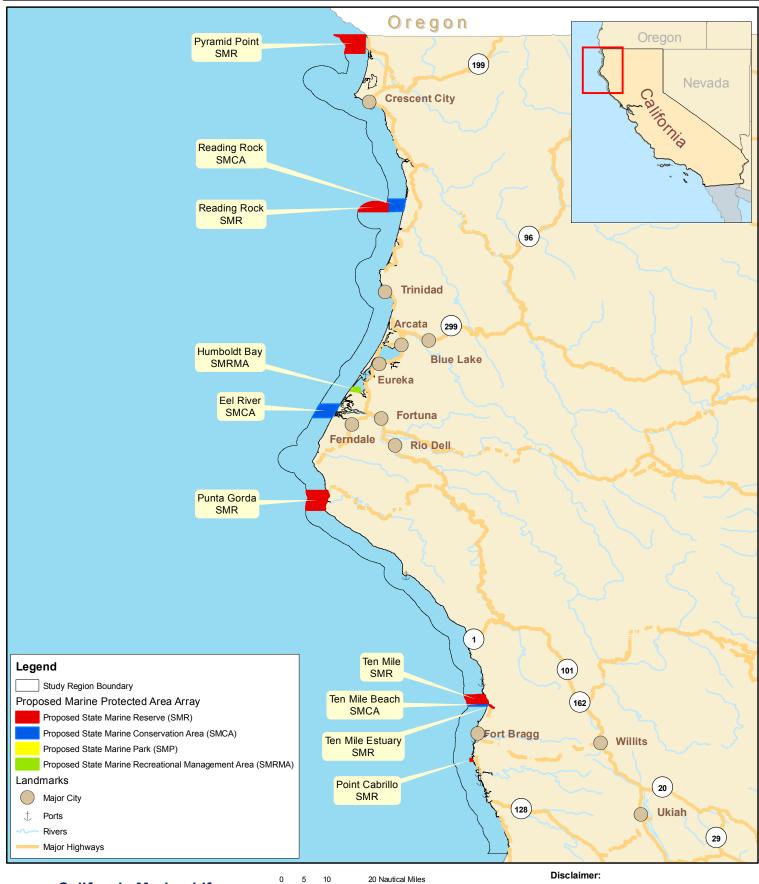
<sup>&</sup>lt;sup>9</sup> Tribal uses are proposed in this MPA. However, pending further policy guidance, these uses are not currently considered in assigning the level of protection for this MPA.

	SMR		SM	SMRMA		SMP		SMCA		Total MPAs	
Habitat <sup>h</sup>	Area	%	Area	%	Area	%	Area	%	Area	%	
				Soft bo	ottom						
0-30 meters proxy*, i	9.45	6%	0.00	0%	0.00	0%	3.84	2%	13.29	8%	
0-30 meters	17.77	7%	0.00	0%	0.00	0%	8.75	3%	26.52	11%	
30-100 meters	27.76	7%	0.00	0%	0.00	0%	1.97	<1%	29.73	7%	
100-200 meters	3.06	5%	0.00	0%	0.00	0%	0.00	0%	3.06	5%	
>200 meters	2.40	31%	0.00	0%	0.00	0%	0.00	0%	2.40	31%	
				Unkn	iown						
0-30 meters proxy*, i	0.00	0%	0.00	0%	0.00	0%	3.77	20%	3.77	20%	
0-30 meters	3.19	2%	1.84	1%	0.00	0%	14.01	8%	19.04	12%	
30-100 meters	0.30	1%	0.00	0%	0.00	0%	1.03	4%	1.33	5%	
100-200 meters	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	
>200 meters	0.02	10%	0.00	0%	0.00	0%	0.00	0%	0.02	10%	
				Oth	er						
Offshore rocks*	5.00	4%	0.00	0%	0.00	0%	0.01	<1%	5.01	4%	
Linear kelp*	2.55	5%	0.00	0%	0.00	0%	0.00	0%	2.55	5%	

Note: Habitats are measured as an area (mi²) except for those with a \* notation. Habitats with a \* notation are expressed in linear units (mi).

There is limited fine scale data for nearshore habitat, shallower than 10-20 meters depth, in the north coast study region. A proxy for this area was created using a line parallel to the coast and classifying the substrate as either hard or soft substrate depending on the dominant habitat type for the 0-30 meter depth zone in that area based on available fine-scale substrate data, shoreline type, kelp abundance, and expert knowledge.

#### **MLPA North Coast Study Region** Round 1- North Coast External Proposed MPA Array H



#### California Marine Life **Protection Act (MLPA) Initiative**

#### **Projection Information:**

Name: NAD 1983 California Teale Albers Projection: Albers Datum: North American 1983

Printing Date: February 16, 2010 Created by Marine Map Cartographic Division, UCSB. For more information, visit http://www.northcoast.marinemap.org/marinemap/

#### Disclaimer:

This map represents a proposed external marine protected area (MPA) array that has been submitted by a north coast community group or groups for consideration in the MLPA planning process. This external MPA array is under review; it is NOT a recommendation to the California Fish and Game Commission.

Name of Array: North Coast External Proposed MPA Array H (ExH)

**Author: California Fisheries Coalition (CFC)** 

Bioregions:

**Total number of MPAs:** 10 Number of SMRs: 6

Number of SMCAs: 3
Number of SMPs: 0
Number of SMRMAs: 1

Northern: Oregon/California border to Mattole River Southern: Mattole River to Alder Creek near Point Arena

Number proposing tribal uses 10

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
Pyramid Point SMR	73959	Northern Bioregion	Northern boundary: California - Oregon Border(42 00') Eastern boundary: 124.13 Sothern boundary: 41.66 Western boundary: 3-mile state waters limit.	SMR	Very high	Yes	Take of all living marine resources is prohibited.	Traditional Tribal subsistence, gathering and ceremonial uses shall not be regulated in the MLPA Process. Traditional Tribal subsistence and ceremonial uses shall be allowed.
Reading Rock SMR	73954	Northern Bioregion	MPA boundaries: North: 41 24.000 minutes to state water Iboundary (Extension of inland MPA) then following state water boundary. West: Following state water line South: 41 21.300 minutes North East: 124 08.000 minutes (West boundary of Inland MPA)	SMR	Very high	Yes	Take of all living marine resources is prohibited.	Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process.

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations
Pyramid Point SMR	N/A		Provides vessel access (Port of Brookings, OR) for study or enforcement. Reduces distance from Crescent City to fishing grounds and improves safety of Crescent City fishers. Reduces economic impacts to sport and commercial fisheries in California's highest poverty level area. This SMR is designed to recognize Native American traditional tribal shore uses that have occurred for thousands of years. Traditional Native American uses of this area, including subsistence and ceremonial shore use, have occurred since time immemorial and those uses are considered de minimis.
Reading Rock SMR		diverse habitats including beaches, soft and hard bottom habitats.	Minimizes social and economic impacts while combining with the Reading Rock SMCA to form a 21 square mile MPA cluster which will substantially contribute to the State MPA System.

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
Reading Rock SMCA	73953	Northern Bioregion	MPA boundaries: North: 41 24.000 minutes (Approximation of parking lot at end of road) West: 124 08.000 minutes (Approximation of 3nm state water boundary) South: 41 21.400 minutes (Approximation of Lagoon and Creek entrance) East: Mean high tide line	SMCA	Moderate high	Yes	The take of all living marine resources is prohibited except:  1. The recreational take of Dungeness crab by hoop net; Dungeness crab by diving; and Dungeness crab by trap.  2. The commercial take of Dungeness crab by trap.	Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process.  Traditional commercial surf fishing as defined and allowed by H.R. 233 (Northern California Coastal Wild Heritage Wilderness Act) should be allowed. The uses defined by this Act should be assigned a high level of protection by the MLPA Initiative.  Staff Note: For Round 1, traditional commercial surf fishing was not taken into consideration when levels of protection were assigned because the LOP for this use conflicted with the stated intentions of array proponents. In future rounds, this proposed activity will be assigned an LOP of moderate in all MPAs where it is allowed.
Humboldt Bay SMRMA	73955	Northern Bioregion	MPA boundaries: These boundaries are all inside Humbolt Bay. North: 40 42.700 minutes West: Mean high tide line South: Mean high tide line East: 124 14.100 minutes (Wilderness area boundary)	SMRMA	Very high	Yes	Take of all living marine resources is prohibited.	Hunting shall be permitted.  Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process.

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations
Reading Rock SMCA	N/A	diverse habitats including beaches, soft and hard bottom habitats. Note that anecdotal accounts indicate more rocky habitat than is depicted in MarineMap. This will be assessed in the near future. Contributes to goals 1-6 of the MLPA.	Minimizes social and economic impacts while combining with the Reading Rock Reserve to form a 21 square mile MPA cluster which will substantially contribute to the State MPA System.
Humboldt Bay SMRMA	N/A	The MPA contains a significant proportion of Humboldt Bay's eelgrass. The Humboldt Bay Harbor District has an ongoing eelgrass monitoring program in Humboldt Bay and would expand that program to include this MPA if adopted. Comparison of this MPA with other areas would allow for a meaningful comparison of areas where clamming is allowed verses restricted.	The MPA is designed to overlap with portions of the Humboldt Bay National Wildlife Refuge.

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
Eel River SMCA	73956	Northern Bioregion	MPA boundaries: North: 40 39.000 minutes West: State waters boundary South: 40 36.000 minutes East: Mean high tide line to beach not including any part of the Eel River)	SMCA	Moderate high	Yes	The take of all living marine resources is prohibited except:  1. The recreational take of Dungeness crab by hoop net; Dungeness crab by diving; and Dungeness crab by trap.  2. The commercial take of Dungeness crab by trap.	Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process.
Punta Gorda SMR	73957	Northern Bioregion	MPA boundaries: North: 40 20.000 minutes West: State waters boundary South: 40 15.700 minutes (Approximation of visible point and rock in water) East: Mean high tide line to beach not including any part of the Mattole River)	SMR	Very high	Yes	Take of all living marine resources is prohibited.	Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process.

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations		
Eel River SMCA	N/A	This unique location attracts feed for numerous pinnipeds,porpoise, whales, birds, and fish like salmon. The combination of river mouth with a nearby canyon make this a highly diverse and productive area with lots of krill and small fish present for much of the year.	This SMCA is a little south of the river mouth to better avoid recreational salmon fishing which occurs in this area.		
Punta Gorda SMR	N/A	This SMR enlarges an already existing SMR at Punta Gorda continuing to protect natural ecosystem structure and function with minimal human-induced changes. It will maintain high benthic species abundance and biodiversity which is characteristic of the north coast region.  Protects natural trophic structure & food webs, including pelagic finfish that serve as prey for other fish, marine birds & marine mammals.  Provides protection to an area that contains one of most persistent & important upwelling plumes along entire California Coast & provides for significant downstream larval dispersal.  Protects larval sources & enhance reproductive capacity of shelf species including rockfishes.  Protects benthic habitat and forage base for fish, birds and mammals at islands.  Increases supply of large adults & larval fish which can disperse to adjacent areas for fisheries harvest outside MPAs.			

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
Ten Mile SMR	73960	Southern Bioregion	Southern Boundary: 39.33.3 Northern boundary: 39.35.2 out to the 3-mile limit	SMR	Very high	Yes		Traditional Tribal subsistence, gathering and ceremonial uses shall not be regulated in the MLPA process. It is not the intention of the proponents to prohibit traditional native tribal harvest, or interfere with their sovereignty on their ancestral lands.  Retrieval of recreational and commercial crab traps permitted.  Removal of invasive species permitted.
Ten Mile Beach SMCA	73952	Southern Bioregion	39.33.3 northern boundary (first washrock north of the Ten Mile River mouth 39.32.7 southern boundary	SMCA	Moderate high	Yes	resources is prohibited except:  1. The recreational take of Dungeness crab by trap.  2. The commercial take of Dungeness crab by trap.	No wave energy projects or oil exploration/leases.  Traditional Tribal subsistence, gathering and ceremonial uses shall not be regulated in the MLPA process. It is not the intention of the proponents to prohibit traditional native tribal harvest, or interfere with their sovereignty on their ancestral lands.

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations
Ten Mile SMR	N/A	This SMR helps maintain biodiversity in fish, invertebrates, seabirds and marine mammals associated with the protection of the ecosystem. This MPA has great diversity in unique marine habitats including; exposed high energy rocky shoreline, sand and gravel beaches, offshore islets, surf grass, kelp beds, hard and soft substrates, while interfacing with the complex estuarine habitats consisting of eelgrass beds, marshlands and mudflat ecosystems. (G1, G2,G3)	According to the Ecotrust information, this area has a low economic impact on crab and commercial rockfish fisheries. This MPA is adjacent to the mouth of the Ten Mile estuary (proposed SMR).  Located at the North end of this MPA is an established marine monitoring site, that along with numerous coastal access points makes it easy for research, recreation and enforcement possible. (G5)  This MPA is clustered with an adjacent Ten Mile SMR. (G1,G3, G3)
Ten Mile Beach SMCA	N/A	Adds protection for soft bottom habitat to the adjacent SMR proposed to the north. Connects the estuarine reserve to the offshore SMR while allowing for commercial and recreational crabbing. Serves as an enforcement "buffer" for the "Randy's Rock" Reserve - a kind of "warden's rumble strip" as vessels approach the SMR.	Extremely important crabbing area for the private recreational and commercial passenger fishing vessel fleet out of Fort Bragg. This area must remain open to crabbing.

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
Ten Mile Estuary SMR	73951	Southern Bioregion	Estuary extends from the mouth of Ten Mile River to an area upstream of approximately 1.7 miles.	SMR	Very high	Yes	Take of all living marine resources is prohibited.	No waterfowl hunting.  No wave energy projects or oil exploration/leases.  Traditional Tribal subsistence, gathering and ceremonial uses shall not be regulated in the MLPA Process. It is not the intention of the array proponents to prohibit traditional native tribal access, harvest, or uses, or to interfere with their sovereignty on their ancestral lands.  Retrieval of recreational and commercial crab traps permitted.  Removal of invasive species permitted.
Ten Mile Estuary SMR (continued)								

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations
Ten Mile Estuary SMR	N/A	Estuary protection (Goals 1-5) Estuaries not only support local fish and shellfish populations that are harvested commercially and recreationally, but these waters also serve as spawning and nursery grounds for populations that are harvested offshore. Estuaries rank along with tropical rainforests and coral reefs as the world's most productive ecosystems, more productive than both the rivers and the ocean that influence them from either side.  Supports current DFG coho and steelhead salmon habitat conservation projects while protecting essential habitat for federal and state listed threatened anadromous fish including coho, Chinook and steelhead salmon. Habitat for osmoregulation and acclimation for critical life phases of anadromous fish; important transportation corridor for adult salmon spawners; rearing habitat for juvenile salmonids, rockfish, flatfish, and tidewater gobies and habitat for smoltification of juvenile salmonids; migratory corridor for spawning lampreys.(G2)	
Ten Mile Estuary SMR (continued)		All species protected. Prime shorebird and waterfowl habitat; feeding area for pinnipeds; critical habitat and transportation corridor for river otters.  This SMR protects larval source and enhance reproductive capacity of numerous invertebrate species such as dungeness crabs, clams, ghost shrimp, eel grass etc. (G1, G2, G4); and expands on long-term protections for complex estuarine habitats, including eelgrass beds, marshlands and mudflat ecosystems.(G1, G2)  Almost the entire stretch of this array is close to population centers, with numerous coastal access points making it easy for research, long- term monitoring, recreation and enforcement. (G3, G5)	

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
Point Cabrillo SMR	73958	Southern Bioregion	None specified	SMR	Very high	Yes	Take of all living marine resources is prohibited.	Traditional Tribal subsistence, gathering and ceremonial uses shall not be regulated in the MLPA Process. It is not the intention of the proponents to prohibit traditional native tribal harvest, or interfere with their sovereignty on their ancestral lands.

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations
Point Cabrillo SMR	N/A	This proposed SMR contains high-quality invertebrate habitat and has been closed to commercial and recreational take of invertebrates since 1975, and the area was also closed to recreational take of finfish while allowing commercial take of finfish. This SMR would replace the existing Pt. Cabrillo SMCA and make the boudaries more feasible. Local biologists say this area is large enough to conduct studies on sea urchins and abalone. Along with the adjacent SMCA to the north, this cluster will provide side by side study opportunity of a no-take zone and an area of sustainable harvests of abalone and urchins.	members, but pending government-to-government consultations, any regulations affecting tribal members must be passed by both

# California Marine Life Protection Act Initiative North Coast Study Region Consideration of Existing Marine Protected Areas Revised January 12, 2010

Please indicate how each to the five existing marine protected areas (MPAs) in the MLPA North Coast Study Region listed below should be addressed. You may propose that the existing MPA be retained without change, be retained with changes to either the boundaries or regulations, or removed. Please also describe the rationale for your proposed action in the space provided. For your reference, the existing regulations and boundaries for these MPAs are included in Tables 1 and 2.

Existing MPA	Retain (no changes to boundaries or regulations)	Modify (included with boundary or regulation change)	Remove (not included)	Rationale for Decision
Punta Gorda SMR		Modified and expanded into SMR		The New Punta Gorda SMR provides more protection conforming to MLPA requirements for a network MPA.
MacKerricher SMCA			Remove	The current SMCA provided little ecosystem protection and expanding protection or making it meet feasibility guidelines may result in substantial economic and social impacts.
Point Cabrillo SMCA		Included in Pt Cabrillo SMR		Protection was increased and lines were made to conform with DFG feasibility guidelines. Research area for goal 3.
Russion Gulch SMCA			Remove	The current SMCA provided little ecosystem protection and expanding protection or making it meet feasibility guidelines may result in substantial economic and social impacts.
Van Damme SMCA			Remove	The current SMCA provided little ecosystem protection and expanding protection or making it meet feasibility guidelines may result in substantial economic and social impacts.

SMR = State Marine Reserve, SMCA = State Marine Conservation Area

**Table 1.** Regulation summary for existing state MPAs in the north coast study region.

MPA Name	Allowed Take: Recreational	Allowed Take: Commercial	Other Restrictions
Punta Gorda SMR	Take of all living marine resources is prohibited.	Take of all living marine resources is prohibited.	Other restrictions exist regarding: swimming, boating, firearms, public entry, pesticides, herbicides and other regulated chemicals, litter, aircraft, pets, potential memorandums of understanding, and scientific research.
MacKerricher SMCA	Finfish, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels and marine worms except that no worms may be taken in any mussel bed unless taken incidentally to the take of mussels.	Finfish, crabs, ghost shrimp, jackknife clams, sea urchins, squid, algae except giant kelp and bull kelp and worms except that no worms may be taken in any mussel bed, nor may any person pick up, remove, detach from the substrate any other organisms, or break up, move or destroy any rocks or other substrate or surfaces to which organisms are attached.	None
Point Cabrillo SMCA	None	Finfish and marine aquatic plants.	None
Russian Gulch SMCA	Finfish, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels and marine worms except that no worms may be taken in any mussel bed unless taken incidentally to the take of mussels.	Finfish, crabs, ghost shrimp, jackknife clams, sea urchins, algae except giant kelp and bull kelp and worms except that no worms may be taken in any mussel bed, nor may any person pick up, remove, detach from the substrate any other organisms, or break up, move or destroy any rocks or other substrate or surfaces to which organisms are attached.	None
Van Damme SMCA	Finfish, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels and marine worms except that no worms may be taken in any mussel bed unless taken incidentally to the take of mussels.	Finfish, crabs, ghost shrimp, jackknife clams, sea urchins, algae except giant kelp and bull kelp and worms except that no worms may be taken in any mussel bed, nor may any person pick up, remove, detach from the substrate any other organisms, or break up, move or destroy any rocks or other substrate or surfaces to which organisms are attached.	None

Table 2. Boundaries for existing state MPAs in the north coast study region.

	for existing state MPAs in the north coast study region.
MPA Name	Boundaries
Punta Gorda SMR	This area is bounded by the three-fathom inshore depth contour, the 30- fathom depth contour and the
	following points:
	40o 16.43' N. lat. 124o 22.00' W. long.;
	40o 16.43' N. lat. 124o 23.50' W. long.;
	40o 14.83' N. lat. 124o 23.18' W. long.; and
	40o 15.23' N. lat. 124o 21.62' W. long.
MacKerricher SMCA	This area is bounded by the mean high tide line, the 3-fathom depth contour and the following points:
	39o 29.81' N. lat. 123o 47.50' W. long.;
	39o 29.95' N. lat. 123o 47.80' W. long.;
	39o 27.62' N. lat. 123o 48.80' W. long.; and
	39o 27.55' N. lat. 123o 48.52' W. long.
Point Cabrillo SMCA	This area is bounded by the mean high tide line, a distance of 1000 feet seaward of mean lower low
	water, and the following points:
	39o 21.24' N. lat. 123o 49.25' W. long.;
	39o 21.33' N. lat. 123o 49.64' W. long.;
	39o 20.66' N. lat. 123o 49.68' W. long.; and
	39o 20.57' N. lat. 123o 49.27' W. long.
Russian Gulch SMCA	This area is bounded by the mean high tide line, the 3-fathom depth contour and the following points:
	39o 19.86' N. lat. 123o 48.84' W. long.;
	39o 19.85' N. lat. 123o 48.89' W. long.;
	39o 19.52' N. lat. 123o 48.46' W. long.; and
	39o 19.52' N. lat. 123o 48.23' W. long.
Van Damme SMCA	This area is bounded by the mean high tide line, the 3-fathom depth contour and the following points:
	39o 16.45' N. lat. 123o 47.60' W. long.;
	39o 16.355' N. lat. 123o 47.60' W. long.;
	39o 16.27' N. lat. 123o 47.545' W. long.; and
	39o 16.27' N. lat. 123o 47.43' W. long.

#### MLPA North Coast Study Region Round 1 - North Coast External Proposed MPA Array H Northern Bioregion (Oregon/California border to Mattole River) Oregon California Pyramid Point SMR Nevada 41°50'0"N Crescent City California Marine Life **Protection Act (MLPA) Initiative** Flint Rock Head Reading Rock SMCA Ossagon Cree 2.5 10 Nautical Miles Reading Rock 14 Statute Miles Stone Lagoor Date: 16 February 2010 Created by: Marine Map Cartographic Division, UCSB. For more information visit: http://www.northcoast.marinemap.org/marinemap/ Arcata www.marinemap.org Blue Lake Eureka This map represents a proposed external marine protected area (MPA) array that has been submitted by a north coast community group or groups for consideration in the $\ensuremath{\mathsf{MLPA}}$ planning process. This external MPA array is under review; it is NOT a recommendation to **Fortuna** the California Fish and Game Commission. **Ferndale** Rio Dell unt's Ree Cape Mendocino Punta Gorda SMR 40°20'0"N 124°50'0"W 124°40'0"W 124°30'0"W 124°20'0"W 124°10'0"W 124°0'0"W 123°50'0"W Legend North Coast Study Region Boundary Estuaries Lighthouse Proposed Marine Protected Area Array Rivers Airport Proposed State Marine Reserve (SMR) Coastal Point Proposed State Marine Conservation Area (SMCA) Major City Proposed State Marine Park (SMP) Ports Proposed State Marine Recreational Management Area (SMRMA)

#### MLPA North Coast Study Region Round 1 - North Coast External Proposed MPA Array H Southern Bioregion (Mattole River to Alder Creek) Oregon Punta Gorda Nevada King Peak Point De gada White Rock **California Marine Life** Whale Gulch **Protection Act (MLPA) Initiative** Needle Rock N..0.05.6E 8 Nautical Miles 10 Statute Miles 2.5 Date: 16 February 2010 Created by: Marine Map Cartographic Division, UCSB. Ten Mile For more information visit: http://www.northcoast.marinemap.org/marinemap/ Ten Mile River Ten Mile Beach SMCA Ten Mile Estuary **Fort Bragg** SMR www.marinemap.org Point Cabrillo SMR This map represents a proposed external River marine protected area (MPA) array that has +Goat Island been submitted by a north coast community group or groups for consideration in the $\ensuremath{\mathsf{MLPA}}$ planning process. This external MPA array is under review; it is NOT a recommendation to the California Fish and Game Commission. Navarro River 39°0'n Alder Creek 124°30'0"W 124°20'0"W 124°10'0"W 124°0'0"W 123°50'0"W 123°40'0"W Legend North Coast Study Region Boundary Estuaries Lighthouse Proposed Marine Protected Area Array Rivers Airport Proposed State Marine Reserve (SMR) Coastal Point Proposed State Marine Conservation Area (SMCA) Major City Proposed State Marine Park (SMP) Ports Proposed State Marine Recreational Management Area (SMRMA)

#### **California MLPA North Coast Project** Habitat Calculations for North Coast External Proposed MPA Array H (ExH) Document Revised on: March 3, 2010

	How	Total Available		Reading Rock	Reading Rock	Humboldt Bay	
	Measured	Habitat	Pyramid Point SMR	SMR	SMCA	SMRMA	Eel River SMCA
MPA ID			73959	73954	73953	73955	73956
MPA Designation			SMR	SMR	SMCA	SMRMA	SMCA
Level of Protection			Very high	Very high	Moderate high	Very high	Moderate high
SAT Evaluation Bioregion			Northern	Northern	Northern	Northern	Northern
Area	sq miles	1,027.23	18.89	11.38	9.88	1.84	13.20
Alongshore Span	miles	NA	4.66	2.49	3.10	N/A	3.71
ESI Shoreline	miles	516.66	0.15	0.00	3.16	3.16	3.75
Min Depth	feet	0.00	11.00	90.00	0.00	N/A	0.00
Max Depth	feet	1,667.00	124.00	247.00	101.00	N/A	120.00
Beaches	miles	180.42	0.00	0.00	3.16	0.00	3.75
Rocky Shores	miles	159.08	0.15	0.00	0.00	0.28	0.00
Hardened Shores	miles	22.10	0.00	0.00	0.00	0.00	0.00
Coastal Marsh	miles	88.60	0.00	0.00	0.00	1.90	0.00
Coastal Marsh (area)	sq miles	3.51	0.00	0.00	0.00	0.04	0.00
Tidal Flats	miles	66.46	0.00	0.00	0.00	0.98	0.00
Humboldt Eelgrass	sq miles	7.07	0.00	0.00	0.00	0.57	0.00
Estuary	sq miles	43.49	0.00	0.00	0.00	1.84	0.00
Offshore Rocks	miles	140.73	0.31	0.00	0.00	0.00	0.00
Linear Kelp	miles	52.10	0.00	0.00	0.00	0.00	0.00
Hard (0 - 30m) Proxy	miles	54.01	0.43	0.00	0.00	0.00	0.00
Hard (0 - 30m)	sq miles	42.32	0.97	0.00	0.00	0.00	0.00
Hard (30 - 100m)	sq miles	45.08	0.00	0.05	0.00	0.00	0.00
Hard (100 - 200m)	sq miles	0.99	0.00	0.00	0.00	0.00	0.00
Hard (> 200m)	sq miles	0.09	0.00	0.00	0.00	0.00	0.00
Soft (0 - 30m) Proxy	miles	159.39	4.21	0.00	3.14	0.00	0.00
Soft (0 - 30m)	sq miles	252.26	14.72	0.21	8.20	0.00	0.00
Soft (30 - 100m)	sq miles	420.79	2.53	11.10	0.12	0.00	0.00
Soft (100 - 200m)	sq miles	62.48	0.00	0.00	0.00	0.00	0.00
Soft (> 200m)	sq miles	7.67	0.00	0.00	0.00	0.00	0.00
Unknown (0 - 30m) Proxy	miles	19.10	0.00	0.00	0.00	0.00	3.77
Unknown (0 - 30m)	sq miles	164.96	0.39	0.00	1.55	1.84	12.17
Unknown (30 - 100m)	sq miles	26.74	0.28	0.02	0.00	0.00	1.03
Unknown (100 - 200m)	sq miles	0.15	0.00	0.00	0.00	0.00	0.00
Unknown (> 200m)	sq miles	0.20	0.00	0.00	0.00	0.00	0.00

#### **California MLPA North Coast Project** Habitat Calculations for North Coast External Proposed MPA Array H (ExH) Document Revised on: March 3, 2010

	Punta Gorda		Ten Mile Beach	Ten Mile	Point Cabrillo
	SMR	Ten Mile SMR	SMCA	Estuary SMR	SMR
MPA ID	73957	73960	73952	73951	73958
MPA Designation	SMR	SMR	SMCA	SMR	SMR
Level of Protection	Very high	Very high	Moderate high	Very high	Very high
SAT Evaluation Bioregion	Northern	Southern	Southern	Southern	Southern
Area	19.36	8.81	2.67	0.19	0.30
Alongshore Span	4.95	2.25	0.67	N/A	0.69
ESI Shoreline	5.47	5.03	0.76	3.24	2.18
Min Depth	0.00	0.00	0.00	N/A	0.00
Max Depth	1667.00	335.00	288.00	N/A	40.00
Beaches	3.30	1.20	0.75	0.42	0.00
Rocky Shores	2.17	3.83	0.02	0.51	2.18
Hardened Shores	0.00	0.00	0.00	0.00	0.00
Coastal Marsh	0.00	0.00	0.00	2.30	0.00
Coastal Marsh (area)	0.00	0.00	0.00	0.05	0.00
Tidal Flats	0.00	0.00	0.00	0.00	0.00
Humboldt Eelgrass	0.00	0.00	0.00	0.00	0.00
Estuary	0.00	0.00	0.00	0.19	0.00
Offshore Rocks	0.98	2.44	0.01	0.00	1.28
Linear Kelp	0.38	1.86	0.00	0.00	0.31
Hard (0 - 30m) Proxy	1.81	0.66	0.00	0.00	0.19
Hard (0 - 30m)	1.03	0.38	0.00	0.00	0.12
Hard (30 - 100m)	1.42	0.20	0.00	0.00	0.00
Hard (100 - 200m)	0.23	0.00	0.00	0.00	0.00
Hard (> 200m)	0.05	0.00	0.00	0.00	0.00
Soft (0 - 30m) Proxy	3.49	1.59	0.70	0.00	0.17
Soft (0 - 30m)	1.45	1.31	0.54	0.00	0.08
Soft (30 - 100m)	7.91	6.22	1.84	0.00	0.00
Soft (100 - 200m)	2.96	0.10	0.00	0.00	0.00
Soft (> 200m)	2.40	0.00	0.00	0.00	0.00
Unknown (0 - 30m) Proxy	0.00	0.00	0.00	0.00	0.00
Unknown (0 - 30m)	1.89	0.62	0.28	0.19	0.10
Unknown (30 - 100m)	0.00	0.00	0.00	0.00	0.00
Unknown (100 - 200m)	0.00	0.00	0.00	0.00	0.00
Unknown (> 200m)	0.02	0.00	0.00	0.00	0.00